

## REMARKS

Claims 1-15 are pending in the application. In the non-final Office Action of April 17, 2007, the Examiner made the following disposition:

- A.) Rejected claims 1, 3, 4, and 10-12 under 35 U.S.C. §102(e) as being anticipated by *Christian, et al.*
- B.) Rejected claims 1, 3, and 4 under 35 U.S.C. §102(e) as being anticipated by *Yamamoto, et al.*
- C.) Rejected claim 2 under 35 U.S.C. §103(a) as being unpatentable over *Yamamoto, et al.* in view of *Christian, et al.*
- D.) Rejected claims 5-9 under 35 U.S.C. §103(a) as being unpatentable over *Christian, et al.*

Applicants respectfully traverse the rejections and address the Examiner's disposition below. Applicants note the Examiner has not commented on claims 13-15. Independent claim 10 is allowable as discussed below. Claims 13-15 depend directly or indirectly from claim 10 and are therefore allowable for at least the same reasons that claim 10 is allowable.

- A.) Rejection of claims 1, 3, 4, and 10-12 under 35 U.S.C. §102(e) as being anticipated by *Christian, et al.*:

Applicants respectfully disagree with the rejection.

Independent claims 1 and 10, each as amended, each claim subject matter relating to an alkaline battery comprising a cathode mix including  $\beta$ -nickel oxy-hydroxide as a cathode active material. In claim 1, cumulative pore volume in connection with pore sizes of not larger than  $0.5 \mu\text{m}$  in the  $\beta$ -nickel oxy-hydroxide particles is in the range of 10 to 60  $\mu\text{l/g}$ . In claim 10, cumulative pore volume in connection with pore sizes of not larger than  $0.5 \mu\text{m}$  in mixed particles of the  $\beta$ -nickel oxy-hydroxide particles and the conductive material is in the range of 10 to 60  $\mu\text{l/g}$ .

This is clearly unlike *Christian*, which fails to disclose or suggest Applicants' claimed cumulative pore volume. As acknowledged by the Examiner, *Christian* fails to teach Applicants' claimed pore volume. The Examiner's argues the claimed pore volume would have been obvious. Applicants disagree. As described in Applicants' specification, Applicants' device having the claimed pore volume performs differently than conventional devices. The claimed pore volume permits discharge time to be prolonged and self-discharge ratio to be low. Specification, page 26, last line - page 27, line 9. For example, as described in Applicants' specification, when pore volume

exceeds 60  $\mu\text{l/g}$ , the storage characteristics are decreased due to considerable increase of self-discharge ratio.

Thus, contrary to the Examiner's assertions, Applicants' device having the claimed pore volume performs differently than conventional devices. It would not have been obvious to one having skill in the art based on the teachings or suggestions of *Christian* to incorporate Applicants' claimed pore volume. Unlike Applicants' claimed invention, *Christian* simply fails to address that pore volume can affect discharge time and self-discharge ratio.

For at least these reasons, *Christian* fails to disclose or suggest claims 1 and 10.

Claims 3, 4, 11, and 12 depend directly or indirectly from claims 1 or 10 and are therefore allowable for at least the same reasons that claims 1 and 10 are allowable.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

B.) Rejection of claims 1, 3, and 4 under 35 U.S.C. §102(e) as being anticipated by *Yamamoto, et al.*:

Applicants respectfully disagree with the rejection.

Independent claim 1, as amended, claims subject matter relating to an alkaline battery comprising a cathode mix including  $\beta$ -nickel oxy-hydroxide as a cathode active material. Cumulative pore volume in connection with pore sizes of not larger than 0.5  $\mu\text{m}$  in the  $\beta$ -nickel oxy-hydroxide particles is in the range of 10 to 60  $\mu\text{l/g}$ .

This is clearly unlike *Yamamoto*, which fails to disclose or suggest Applicants' claimed cumulative pore volume. As described in Applicants' specification, Applicants' device having the claimed pore volume performs differently than conventional devices. The claimed pore volume permits discharge time to be prolonged and self-discharge ratio to be low. Specification, page 26, last line - page 27, line 9. For example, as described in Applicants' specification, when pore volume exceeds 60  $\mu\text{l/g}$ , the storage characteristics are decreased due to considerable increase of self-discharge ratio.

*Yamamoto* fails to discuss or suggest Applicants' claimed pore volume. Further, *Yamamoto* fails to disclose or suggest that pore volume can affect discharge time and self-discharge ratio. Applicants' device having the claimed pore volume performs differently than conventional devices. It would not have been obvious to one having skill in the art based on the teachings or suggestions

of *Yamamoto* to incorporate Applicants' claimed pore volume.

For at least these reasons, *Yamamoto* fails to disclose or suggest claim 1.

Claims 3 and 4 depend directly or indirectly from claim 1 and are therefore allowable for at least the same reasons that claim 1 is allowable.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

C.) Rejection of claim 2 under 35 U.S.C. §103(a) as being unpatentable over *Yamamoto, et al.*, in view of *Christian, et al.*:

Applicants respectfully disagree with the rejection.

Claim 1 has been amended to include the subject matter of claim 2. Claim 2 has been canceled.

As discussed above, neither *Yamamoto* nor *Christian*, taken singly or in combination, teaches or suggests Applicants' claimed pore volume.

D.) Rejection of claims 5-9 under 35 U.S.C. §103(a) as being unpatentable over *Christian, et al.*:  
Applicants respectfully disagree with the rejection.

Independent claim 5, as amended, claims an alkaline battery comprising a cathode mix containing β-nickel oxy-hydroxide and manganese dioxide as cathode active materials. The cumulative pore volume in connection with pore sizes of not larger than 0.5 µm in mixed particles of the β-nickel oxy-hydroxide particles and the manganese dioxide is in the range of 10 to 60 µl/g.

As discussed above, *Christian* fails to disclose or suggest Applicants' claimed pore volume. For at least this reason, *Christian* fails to disclose or suggest claim 5.

Claims 6, 8, and 9 depend directly or indirectly from claim 5 and are therefore allowable for at least the same reasons that claim 5 is allowable.

Claim 7 has been canceled.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

CONCLUSION

In view of the foregoing, it is submitted that claims 1, 3-6, and 8-15 are patentable. It is therefore submitted that the application is in condition for allowance. Notice to that effect is respectfully requested.

Respectfully submitted,

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